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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,017	04/12/2005	Dominicus Martinus Wilhelmus Leenaerts	NL 021004	2139

24737 7590 06/19/2006

PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
P.O. BOX 3001  
BRIARCLIFF MANOR, NY 10510

EXAMINER
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LUU, AN T

ART UNIT	PAPER NUMBER
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2816

DATE MAILED: 06/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/531,017

Applicant(s)

LEENAERTS ET AL.

Examiner

An T. Luu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are missing in the application. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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3. Claims 1, 3 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by the Yamaguchi et al reference (US Patent 5,896,025).

Yamaguchi discloses in figure 1 a pulse generator comprising a series coupling of delay elements (R1-R6) every two consecutive delay elements being coupled in a plurality of coupling points, the series coupling of delay elements having a first end T1 and a second end T2 coupled to a first signal and a second signal (i.e., positive and negative potential levels at nodes T1 and T2), respectively, the first and second signals having a same frequency and being mutually phase-shifted (i.e., positive and negative potential levels), the pulse generator being characterized in that it further comprises a zero-crossing detector LT1 coupled to two mutually different coupling points for generating an output pulse a duration determined by a ratio between a number of delay elements between the two different coupling points and a total delay of the series coupling of delay elements as required by claim 1.

As to claim 3, col. 4, lines 40-45, discloses delay elements R1-R6 being equal-value resistors.

As to claim 6, col. 4, lines 58-63, discloses element LT1 being a latch:

4. Claims 1 and 2 rejected under 35 U.S.C. 102(b) as being anticipated by the Hedberg reference (US Patent 5,734,283).

Hedberg discloses in figure 11 a pulse generator comprising a series coupling of delay elements (301, 302, 304, 306) every two consecutive delay elements being coupled in a plurality of coupling points, the series coupling of delay elements having a first end (i.e., common point of 308 and 301) and a second end (i.e., common point of 306 and 310) coupled to a first signal (i.e.,

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CKin at zero degree phase difference) and a second signal (i.e., CKin at 450 degrees phase difference), respectively, the first and second signals having a same frequency and being mutually phase-shifted, the pulse generator being characterized in that further comprises a zero-crossing detector 316 coupled to two mutually different coupling points for generating an output pulse a duration determined by a ratio between a number of delay elements between the two different coupling points and a total delay of the series coupling of delay elements as required by claim 1.

As to claim 2, Hedberg discloses in figure 4 an oscillator 100 to generate a clock signal. Apparently, Ckin of figure 11 could be generate by the oscillator 100. Further, delay 308 is seen as a phase-shifter as required by the claim.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Hedberg reference (US Patent 5,734,283) in view of the Schnell reference (US Patent 6,456,130).

Hedberg discloses all the claimed invention except for teaching delay elements being equal-value resistors as required by claim 3.

Schnell discloses in figure 2 and associated description a delay lines 114 comprising series connected resistors as delay elements as required by the claim. It would have been obvious

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to one skilled in the art at the time the invention was made to utilize genetic delay elements in Hedberg with resistors as taught by Schnell since it is well known in the art that a delay element can be constructed by various electrical elements. A skilled artisan would utilize resistors as delay elements since they are relatively cheap and available in various sizes and shapes.

As to claim 4, Hedberg discloses in figure 11 a pulse generator having the first signal and the second signal mutually shifted in quadrature signals (i.e., 90 degrees apart).

As to claim 5, Hedberg discloses in figure 4 an oscillator 100 to generate a clock signal. Therefore, the mutually shifted in quadrature signals derived from the clock signal are seen as generated by a quadrature oscillator.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to An T. Luu whose telephone number is 571-272-1746. The examiner can normally be reached on 7:30-5:00.

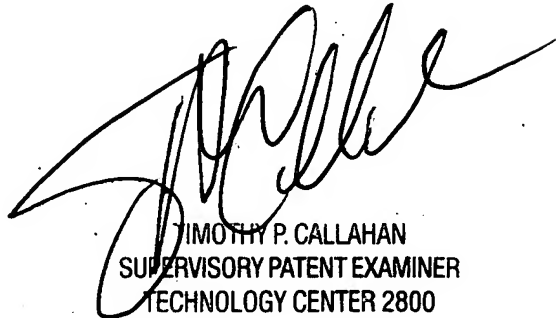
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

An T. Luu

6-2-06 *AL*



TIMOTHY P. CALLAHAN  
SUPERVISORY PATENT EXAMINER  
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